Permit Efficiency Implementation

"Establish criteria for field inspections at critical steps during construction and closure to expedite final CTO approval and final certification."

Background

During the 2004 General Assembly, the assembly passed bills that revised the permit fees assessed and required the DEQ to evaluate and implement measures to improve the long term effectiveness and efficiency of its programs to ensure that maximum value is being achieved from the funding provided. The DEQ contracted with ERM to conduct the review in conjunction with three stakeholder groups. Based on this work, top solid waste opportunities were developed. The second opportunity was to expedite permit review and issuance processes. This document is being developed to specifically address task 7 under this opportunity, "Establish criteria for field inspections at critical steps during construction and closure to expedite final CTO approval and final certification."

Limitations

There is a finite limit to the amount of manpower that can be used to conduct construction inspections during the construction of a new facility or closure of a landfill. For every day spent by the permit writer conducting field inspections there is a negative effect on the processing other permit applications. However, the term "expedite" should not be wholly interpreted to mean that our goal is always to be faster. Our goal is to "improve" the process to make department certification of new construction and closures a more meaningful process. Sometimes this may mean slowing things down in one area to get a better product elsewhere. To expedite the issuance of CTO and closure certifications the Department must explore opportunities that will balance the benefits of conducting additional construction inspections with the cost of slowing down the processing of other permit applications.

Agency Regulations and Guidance Review

A solid waste management facility is required to obtain an inspection and approval from the Department prior to accepting waste for disposal. In addition, upon closure, the operator is again required to obtain an inspection to confirm that the closure is complete and adequate. There is no regulatory requirement to inspect the facility during construction.

Specifically, the Virginia Solid Waste Management Regulation (VSWMR) 9 VAC 20-80-550.A.2 requires the applicant to "Arrange for a department representative to inspect the site and confirm the site is ready for operation". Additionally, for sanitary landfills VSWMR 9 VAC 20-250.B.18.d states "Certification. Waste shall not be received in a landfill unit until the owner or operator has submitted to the department by certified mail or hand delivery a certification signed by the CQA officer that approved CQA plan has been successfully carried out and that the unit meets the requirements of this section.

Documentation supporting the CQA officer's certification shall be submitted to the department upon request. An additional engineer's certification is required under the provisions on 9 VAC 20-80-550.A.1". Identical requirements for CDD landfills is found at 9 VAC20-80-260.B.17.D and for Industrial Landfills at 9 VAC 20-80-270.B.19.d.

In addition, VSWMR 9 VAC 20-80-250E.5 states "The department shall inspect all solid waste management units at the time of closure to confirm that the closing is complete and adequate…."

A review of the existing guidance documents produced the following guidance concerning CTO inspections:

1. The existing Permit Manual Section II.D.4.f states "During construction of the facility, the permit writer should inspect the site to ascertain proper completion of environmentally important phases. After the facility is constructed and the Department is notified to that effect, the permit writer shall visit the facility to determine if construction is complete and the facility is ready to start accepting solid waste. The permit writer shall discuss the time and date of the planned inspection with the Regional Waste Compliance manager and provide the opportunity for regional staff to attend the inspection. CTO inspection checklists specific to the facility type are provided in appendix D."

2. The existing Permit Manual Section II.D.4.g requires "After completion of the site inspection, the review of the construction quality assurance report and the professional engineer certifications, the permit writer shall send the letter to the facility confirming that operations may begin. A sample letter is shown in appendix D."

A review of the existing guidance documents produced the following information concerning Closure inspections:

A guidance document entitled "Solid Waste Closure Responsibilities (ver10/1/95)" was reviewed. The document provides guidance on the responsibilities of compliance, permitting, and enforcement staff concerning facility closure. Due to the changing organization structure much of the guidance is dated and needs to be revised. However, the general principles of having the permit writers review the closure plans and CQA documentation in coordination with construction inspections conducted by the compliance staff still applies.

Current Practice

The CTO inspection verifies that cell construction has been completed in accordance with the plans and specifications in the permit and is ready to receive waste. Due to manpower restrictions we have been limited to one inspection. Per the requirement of the VSWMR, the one inspection we conduct is after the construction has been completed to ensure all items have been constructed and built in accordance with the design plan. No

time frames for issuance of the CTO have been established in the Permit Manual. However, it has been the Department's procedure to attempt issue a CTO within 2 weeks of conducting the field inspection and receipt of the CQA documentation and professional engineer's certification.

The closure inspection verifies that the unit has been closed in accordance with the closure plan and is completed after the receipt of the P.E certification of the closure, sign posting, recordation of the plat and deed. Closure inspections and certifications are conducted within 180 days of receipt of the closure documentation by the compliance staff with assistance from the permit staff if requested.

Strategies to Expedite Certification

1. Prior to beginning construction of a new cell or closure, a pre-construction meeting needs to be held with DEQ permit staff, permittee, contractor and engineer to review the design, CQA Plan and specifications. This would help prevent problems with out-of-date specifications and testing requirements – items that frequently come to light only after the CQA Report has been submitted.

   Recommend adding the following to the Permit Manual Section II.D.4:
   "Prior to beginning construction of a new cell a pre-construction meeting shall be held with the permittee, contractor, and engineer to go over the design, CQA plan and specifications".

   It is also recommended that the permit transmittal letter be modified to identify this pre-construction meeting and that the condition be added to Permit Module I.

   Additionally, it is recommended that the following be added to the Permit Manual Section IV.A.7:
   "Prior to beginning the closure construction a pre-construction meeting shall be held with the permittee, contractor, and engineer to go over the design, CQA plan and specifications".

   It is also recommended that the closure plan approval letter be modified to identify this pre-construction meeting and that the condition be added to Permit Module I.

2. If possible Design Plan Specifications need to be performance based to reflect the possibility of the use of functionally equivalent materials.

3. The greatest gains in expediting the issuance of a CTO or closure certification is having the design plan match the actual construction which is reflected in the CQA documents and P.E. Certification. Any deviation from the design plan in construction must be communicated promptly with the permit writer prior to the final inspection and submission of the CQA documents.

It is recommended that a condition be added to the Permit Module I incorporating the requirement to have approval from the department for any deviation from the design plan prior to implementation.

4. Inspections of new cell construction shall be conducted at critical stages of the construction process to give the permit writer an understanding of the work activities that are summarized in the CQA report. The three critical stages of new cell construction have been identified as the: preparation of the base grade; liner installation; and leachate collection system construction. In order to expedite the CTO process QA/QC documents for each critical stage may be reviewed and approved separately. Additional new construction inspections can be conducted by the permit writer if time permits.

   It is recommended that the Permit Manual Section II.D.4.f be modified as follows:

   During construction of the facility, the permit writer *shall* inspect the site to ascertain proper completion of environmentally important phases *of base grade preparation, liner installation, and leachate collection system construction*. *In order to expedite the CTO process if possible QA/QC documents for each critical stage may be reviewed and approved separately.* After the facility is constructed and the Department is notified to that effect, the permit writer shall visit the facility to determine if construction is complete and the facility is ready to start accepting solid waste. The permit writer shall discuss the time and date of the planned inspection with the Regional Waste Compliance manager and provide the opportunity for regional staff to attend the inspection. CTO inspection checklists specific to the facility type are provided in appendix D.

   It is also recommended that the permit transmittal letter be modified and the condition added to Permit Module I to identify these three required construction inspections.

5. For closure construction an additional construction inspection needs to be conducted upon completion of the installation of the infiltration layer and prior to the complete installation of the erosion layer.

   It is also recommended that the closure plan approval letter be modified to identify this closure construction inspection that the condition be added to Permit Module I.

Recommendation

Staff believes there would be a minimal reduction in processing times for CTO's and closure certifications by conducting additional construction inspections by permitting staff. However, additional construction inspections would improve the certification and permitting processes by providing additional quality assurance, opening lines of communication between the permittee, his contractor and engineer and the department

concerning any deviation from approved permit and associated permit amendments and will expose the permit writers to construction techniques that can be used on other projects. Therefore it is recommended that the department incorporate the pre-construction meeting and base grade, liner installation and leachate collection system construction inspections into the CTO process.

It is also recommended that an additional closure construction inspection be conducted after the infiltration layer has been installed and prior to the complete installation of the erosion layer. The biggest reduction in processing times would be achieved by fostering communication with the permittee and their engineer beginning with a pre-construction meeting and requiring any change in the design plan, specifications, materials, or testing standards to be communicated to the permit writer prior to implementation and at a minimum prior to submission of the CQA documentation, P.E. Certification and final inspection.

It is understood that this increase in construction inspections will impact the processing of other permit applications. However, it is believed that the benefits of quality assurance, enhanced communication, and education of staff outweigh the costs to application processing times.

As part of permitting process efficiency team the checklist should be prepared to more efficiently address issues to be examined in reviewing the submitted QA/QC documentation in addition to relying on the P.E. Certification